



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,759	08/07/2006	Bin Yin	NL040133	5849
24737	7590	10/03/2008	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			ORTIZ CRIADO, JORGE L	
P.O. BOX 3001				
BRIARCLIFF MANOR, NY 10510			ART UNIT	PAPER NUMBER
			2627	
			MAIL DATE	DELIVERY MODE
			10/03/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/597,759	YIN, BIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	JORGE L. ORTIZ CRIADO	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 August 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 07 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The examiner cannot ascertain where in the specification s originally filed support for an apparatus for writing bit patterns in an optical disc is found. There is no description found about an apparatus for writing bits.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation “the position of a secondary eye pattern in the eye pattern”. It is not clear what position in relationship with the eye pattern and any other eye in the pattern is intended to encompass with this language, since there is no a primary/first pattern and respective position thereof, making the claim indefinite. One of an ordinary skill in the art would not know what position in relationship with the eye patterns is intended.

Claims 2-8 fall together accordingly.

Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the system and the apparatus respectively, hence fails to particularly point out the subject matter which applicant regards as the invention.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 7 and 8 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant’s admitted prior art (hereinafter AAPA).

AAPA discloses a disc with patterns (digital information) written thereon (see page 1) and are written by an apparatus for writing (optical system).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(a) as anticipated by Applicant's admitted prior art (hereinafter AAPA or, in the alternative, under 35 U.S.C. 103(a) as obvious over in view of Sano et al. U.S. Patent No. 5,740,141.

As per claim 1, AAPA discloses a method of providing threshold crossing timing recovery in an optical system, which optical system is adapted to read data signal samples from an optical disc (see specification page 1), said method comprising the steps of:

reading data signal samples at a sampling time from the optical disc by means of the optical system, feeding the read data signal samples to a timing recovery means comprising a timing error detection means, determining timing error information ( $\psi_k$ ) by means of the timing error detection means, adjusting the sampling time towards synchronous timing instants on the basis of the timing error information, characterized in that an eye pattern (threshold crossings;

Art Unit: 2627

zero crossings) of the data signal samples is used in the step of determining timing error information (see page 1 lines 22-29 and page 2 lines 1-2),

Note: It is noted that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

AAPA can be adapted to extract timing error information ( $\psi_k$ ) at the position of “a secondary eye” in the eye pattern, since has the ability to extract from an eye in the pattern (threshold crossings; zero crossing).

Alternatively, extracting or sampling performed at “secondary eyes positions” is well known in the art and is evidenced by Sano et al. (see for example Figs. 8, 9; col. 9, lines 9-20), which discloses that at timings (t0) range IA IC, corresponding to secondary eye are used to sample and obtain timings.

It would have been obvious to one of an ordinary skill in the art to extract timing information from a secondary eye so as to provide signal detection in the case of partial response, as taught by Sano et al.

As per claims 2 and 3, AAPA further shows that the timing recovery means uses threshold crossing timing recovery, as in claim 2, and threshold crossing timing recovery is zero crossing timing recovery 9, as in claim 3) (see page 1 lines 22-29 and page 2 lines 1-2).

As per claims 4 and 5, the expressions outlined in the claims are drawn to the expressions of threshold crossing, zero crossing recovery, but with a modification of a threshold level and phase difference which correspond to the second eye. However, these modifications correspond to the levels and phases taught by Sano et al. of levels IB/IC and phase difference at time (t0).

Hence, the combination outlined above meets the claim.

As per claim 6, the combination shows a system (optical system).

***Conclusion***

The prior art made of record cited on PTO 892, but not relied upon, are considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JORGE L. ORTIZ CRIADO whose telephone number is (571)272-7624. The examiner can normally be reached on Mon.-Fri 10:00 am- 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/  
Primary Examiner, Art Unit 2627